

Feeding a crowd safely



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SAFELY FEEDING A CROWD

Social events are often linked with food. How often have you or a friend helped organize a wedding reception, a dinner at a church or community center, or a large party in your own home? Ham suppers, turkey dinners, strawberry socials, pancake breakfasts — all bring back memories of delicious home-cooked meals. Or do they? If you are preparing food for a crowd, you will want your guests to remember how great the meal was — not the upset stomach they received.

This publication will help you safely organize a meal at home for a large group. It is intended for the person who normally does not have foodservice knowledge in buying or preparing food in quantity. The publication discusses all the steps involved from planning a sample menu for feeding 50 people to serving the food.

A word of caution. If you organize a meal for a group outside your home, contact your local health unit. Local health officials can tell you about the area's health regulations and the liability you could face if your guests became ill from your meal. As well, they can advise you on the safest way to proceed with the meal.

Bacteria are everywhere — in the house, on raw foods, on countertops, on your hands, and in your hair. Given the appropriate food (dairy, egg and meat products) and temperature, anywhere between 4 and 60°C, bacteria that can cause food-borne illness will grow very rapidly and can reach dangerous levels within a few hours.

To prevent foods from becoming unsafe, it is important to reduce contamination by keeping everything touching the food scrupulously clean. Keep bacterial growth in check by following these instructions:

- Keep hands, utensils and counters clean.
- Keep hot foods piping hot — 60°C or over.
- Keep cold foods refrigerator cold — 4°C or under.
- Use food within safe storage time.

The most common bacterial causes and symptoms of food poisoning and potential food sources are listed at the back of this publication.

Safe and potentially unsafe foods*

Safe foods

These foods can be stored safely at room temperature. Many of the items listed below will keep longer and retain their quality better if refrigerated.

Nuts and peanut butter

Bread, crackers, cookies and cake

Jam, honey, syrup and candy

Butter, margarine and cooking oil

Dry cereals and powdered milk (until reconstituted)

Raw, cooked and dry fruit

Raw vegetables

Pickles, relishes, mustard and ketchup

Hard cheese (for a short period of time)

Canned fish and meat until opened (but not vacuum-packed products, which must be refrigerated even if unopened)

Even usually safe foods are not completely safe indefinitely. Food, such as cheese or jam, can support the growth of molds that can produce harmful toxins. When in doubt about a moldy food, play it safe and throw it out.

Unsafe if not stored and handled properly

Raw and cooked meat, processed meats, meat sandwich spreads (All meats should be refrigerated unless the package states that the product can be kept at room temperature.)

Raw and cooked fish and shellfish, and fish salad

Raw and cooked poultry, and poultry salad

Cooked vegetables

Cooked legumes such as baked beans

Cooked cereals

Custards, puddings and whipped cream

Gravies

Milk and milk products

Dressings for meat, poultry and fish

Canned meats, fish and combination dinners (after opening)

SAFE MENU PLANNING

A well-planned menu is the key to a safe, successful meal. When choosing foods for the meal, keep the following points in mind.

- Think about how much refrigerator and oven space you will need. Do you have enough room to keep the hot foods piping hot (above 60°C) and the cold foods refrigerator cold (below 4°C)?
- Beware of the potentially unsafe foods on the menu. Can they be handled safely?
- Consider the time needed to prepare each menu item. Can anything be made and frozen in advance? Can all hot foods be ready at the same time or will there be problems in keeping food hot while you prepare other foods?
- Give some thought to how the meal will be served. Do you have enough equipment to serve it properly (e.g., hot plates, utensils, etc.)?
- List everything you will serve on your menu — even the salt and pepper. This will help you prepare your grocery list.
- Remember which season you're in. Serving foods safely in the summer is often more difficult to do than in the winter. For example, in colder weather, unheated garages and cold storage rooms may be used to store some food, but remember to check the temperature with a thermometer first (4°C or less).

* Adapted from Health and Welfare Canada's publication *Food Safety — It's All in Your Hands*

BUYING AND STORING FOOD SAFELY

Armed with your detailed menu and recipes, make a shopping list. Write down everything you will need, including spices and paper supplies. The food-buying guide (p. 5) will help you determine how much food to buy.

Buy food from a reputable grocer. Although you may hear of a "deal" or "bargain" elsewhere, be wary. Now is not the time to sacrifice food quality and possible food safety.

Always buy government-inspected meat and poultry. This is your assurance that the meat is safe and wholesome for the purpose intended. It's then up to you to keep it that way until you serve your guests.

Do not purchase cracked eggs. Although they may appear to be a bargain, the risk of contamination by salmonella bacteria is great. Bacteria may be present on the exterior of the shell and can get inside the egg through cracks. If an egg becomes cracked, use it only in a food that will be thoroughly cooked.

Check cans to ensure they are not bulging at the ends. Avoid buying badly dented or rusted cans — these are warning signs that the food may be contaminated. Ask the store manager to remove the cans from sale.

Buy tightly sealed vacuum-packed meats. A package where the wrapping does not cling to the meat has a poor seal, and the meat will not be top quality.

Avoid buying frozen foods with a heavy frost buildup. This indicates that the contents may have previously thawed. Damaged frozen food packages are susceptible to bacteria entering through tears and holes.

Never buy foods that normally need refrigeration (e.g., eggs, dairy products) from unrefrigerated counters.

Either buy vacuum-packed pre-sliced meats or have cold cuts sliced at the delicatessen counter while you wait. Avoid buying non-vacuum-packed pre-sliced meats, as they deteriorate more rapidly. Make sure that there is no cross-contamination from raw to cooked foods (contaminating one food with bacteria from another). The same slicing machine should not be used to slice cold cuts and raw meat unless the machine is washed between slicing.

Consider the storage space that you have available. If you overload the refrigerator, the temperature will rise above 4°C — a climate for bacterial growth. If you do not have enough space, perhaps a neighbor has. It is essential that potentially unsafe foods be refrigerator cold at all times.

When you bring the food home, store it immediately. Do not keep potentially unsafe foods at room temperature for very long. Keep in mind the length of time the food is unrefrigerated after buying it; food is often left unchilled when it is being transported home, during all stages of preparation and when it is waiting to be served. Ideally, potentially unsafe foods should not remain at room temperature for more than 2 hours at any one stage and no more than 4 hours for the total time between buying and eating the food.

When storing foods, avoid cross-contamination. Wrap foods carefully to prevent juices from dripping onto other products. Keep raw and cooked foods separate.

Raw meats have different storage times depending on the amount of surface area exposed. For example, bacteria have a better chance of growing in ground meat than in a roast.

Raw meat	Refrigerator storage time
Ground meat	1-2 days
Poultry	2-3 days
Roasts	3-4 days
Steaks, chops	2-3 days

The safest way to thaw foods is in the refrigerator, because bacterial growth is prevented below 4°C. This method also reduces the loss of liquid and nutrients by keeping the food cold until it is completely defrosted. As well, the thawing process also helps to keep the refrigerator cold. This technique is fairly slow (allow 10 h/kg food) and therefore requires some planning.

Thawing foods in cold water is another safe method that is especially useful for large items such as turkeys. It prevents excessive bacterial growth on the food surface while the rest of the food is thawing. Water is a good conductor of heat and cold, so foods thaw quickly (2 h/kg). The water should be kept cold; change it frequently.

The most unsafe way to thaw foods is at room temperature. This is because bacteria grow rapidly on the warmer surface. If you must thaw foods at room temperature, place the food in a heavy paper bag. It helps keep the surface area cold while the rest of the food is thawing.

Your kitchen counter or tabletop must be kept as clean as possible. Use clean utensils for each food you are going to prepare and every time you taste the food. Never put the utensil back in the food after you have used it to taste the food.

Bacteria often spread through incorrect use of cutting boards. Wooden boards are not recommended because they are very difficult to clean thoroughly.

Heavy plastic cutting boards are safer. Do not use the same board for cutting raw and cooked foods: this provides an ideal situation for cross-contamination. Clean the boards well with hot soapy water and disinfect them with a chlorine bleach. Hot water alone will not destroy bacteria such as salmonella. To make a chlorine bleach solution, follow package directions or add bleach to water until you can smell the chlorine (about 5 mL bleach to 1 L water). Avoid splashing the bleach on skin or eyes. If this happens, flush the area with large amounts of water.

Use extra care when preparing protein foods such as meat, poultry, eggs and milk products. Remember, these foods are potentially unsafe if they are not kept piping hot (above 60°C) or refrigerator cold (below 4°C). Prepare these foods as quickly as possible so that they are not exposed to room temperature for a long time.

PREPARING FOOD SAFELY

Personal cleanliness is of utmost importance during food preparation. Food poisoning can occur because of lack of personal care. Wash your hands before and during food preparation to help prevent cross-contamination of foods. Cover all cuts with a bandage. Do not prepare food if you are ill. Avoid smoking anywhere near the food because ashes and bacteria can be transferred from your mouth to your hands to the food.

Thawing foods properly is an important preparatory step. Improper thawing can affect the safety of the food. Freezing foods does not kill bacteria; it just prevents them from multiplying. Proper thawing techniques help keep the bacteria from multiplying quickly. Use or refrigerate the food as soon as possible after thawing.

Hints for preparing potentially unsafe foods

- After preparing raw poultry for the oven, wash hands, equipment and countertop with hot soapy water then disinfect with a chlorine bleach solution.
- Do not stuff turkey or chicken. The dressing can provide a perfect environment for bacterial growth — it is warm, moist and low in acid. As well, handling the dressing before cooking increases the risk of contamination. When stuffed in a bird, the center of the dressing takes a long time to become piping hot. During that time bacteria can multiply or toxins that can cause food poisoning can be produced. Always cook dressing separately. The dressing recipe provided at the end of the publication will be as tasty as if it had been cooked in the turkey or chicken itself.
- Cook all poultry at an oven temperature of 150°C or higher. Oven temperatures below 150°C will not kill food poisoning organisms.
- Do not roast meat or poultry partially one day and finish roasting it the next. You run a high risk of growing food poisoning bacteria.
- When cooking roasts for a crowd it is easier — and safer — to cook several smaller roasts than a large one. They will be easier to lift, cook, carve and chill.
- Use a thermometer to determine the internal temperature of meat. This is the safest way to know if the meat is cooked.

Internal temperatures

beef	— 60-75°C
lamb	— 65-75°C
pork	— 80-85°C
poultry	— 85°C (in the thigh)
veal	— 80°C

Note: A rare or medium beef or lamb roast should have an internal temperature of 60-65°C. Once the roast has reached this temperature, remove it from the oven and cover with foil for at least 10 minutes before serving.

— Foods such as gravy, spaghetti sauce, chili, lasagna and stews take a long time to become piping hot in the center. They are also difficult to chill quickly. When preparing these foods make several small pans rather than one large one. It is easier to heat them piping hot (over

60°C); chilling to less than 4°C will be faster.

- Egg and milk mixtures must be handled with care. When making custard sauces, chill them quickly, place containers in ice cold water and stir frequently. Do not make homemade eggnog for a crowd. The large number of eggs used in the mixture carries a higher risk of salmonella contamination. Buy store-bought eggnog instead, but always remember to keep it refrigerator cold.
- Sandwiches made with meat, poultry and eggs require care in preparation. Ground or chopped fillings have an even higher risk of being contaminated because more surface area is exposed. When making sandwiches, wash countertops with hot soapy water. To make sandwiches for a crowd, line slices of bread in pairs. Spread butter or margarine with a spatula. Scoop filling onto one row of bread slices; spread filling to edges and cover with remaining bread slices. Stack sandwiches for cutting and wrapping. Refrigerate immediately.

Vegetables, once cooked, are potentially unsafe. Softened by heat, they are ripe for bacterial contamination. Cook vegetables as close to the serving time as possible. Preparing them too far in advance not only increases bacterial growth but also reduces some nutrients, taste and texture.

- Prepare vegetables in several small containers rather than in a large one. They will cook faster and will be easier to handle.
- Do not use home-canned products when serving a crowd. They are too risky. If not properly processed, home-canned foods may contain the toxin that causes botulism.
- Be careful when opening commercially canned products. Do not use if the food spurts or if there is a foam or unpleasant odor. Do not even taste the food. Place can with contents and lid in a plastic bag and refrigerate. Notify your local public health unit officials. They will take the product and investigate the cause of the spoilage.

Sometimes people are asked to prepare food at home and bring it to another place to be served (e.g., a potluck supper). Unless the food can be kept safely at room temperature, this prac-

tice should be discouraged. However, items such as fruit pies, raw vegetable platters and cookies are safe and easy to carry (see also list of safe foods).

SERVING THE MEAL SAFELY

Once you have safely prepared the meal, take special care in serving it: hot foods must be served piping hot (over 60°C); cold foods refrigerator cold (below 4°C). This can often be difficult because of the large quantity of food served.

If you're serving the meal buffet style, serve foods in shallow containers and replenish them frequently. Use hot trays to keep food hot. Candle-type warmers are not recommended because they do not produce enough heat to prevent the growth of bacteria. Serve cold foods on ice if possible. Be sure each item has its own serving utensil. Keep hot foods covered as much as possible.

Be careful when setting the table and serving the food. Wash your hands before handling utensils and dishes. Do not touch the rims of glasses or the eating ends of cutlery. Use disposable dishes and cutlery if you do not have enough regular ones. Throw them away after use. Do not use them again.

Refrigerate unused portions of the potentially unsafe foods within 2 hours after your guests are served. If you are unsure about the length of time a food has been unrefrigerated, throw it out.

Food safety is always a major concern whether you are serving your family or a crowd. Preventing food poisoning bacteria from growing when you work with large amounts of food requires a great deal of careful planning.

Preventing food poisoning is your responsibility. Always remember the main ingredients in the recipe to feed a crowd safely: proper sanitation, good personal hygiene, and proper buying, storing, cooking and serving methods.

FOOD-BUYING GUIDE

The guide is based on the serving size indicated. If you are serving larger portions, adjust your quantity accordingly.

Food		Serving size	Unit/servings
<i>Milk and milk products</i>			
	Milk – to drink	250 mL	1 L = 4 servings
	– for tea/coffee	25 mL	1 L = 40 servings
	Cheese – for wine and cheese party	60-90 g	500 g = 6-8 servings
	– meal accompaniment	30 g	500 g = 16 servings
	– grated	for cooking	400 g = 1 L
	Ice cream	125 mL	2 L = 16 servings
<i>Fruits and vegetables</i>			
	Apples	1	1 kg = 6 large apples 1 medium apple = 250 mL diced or sliced
	Applesauce – dessert	125 mL	796 mL can = 6 servings
	– condiment	25 mL	796 mL can = 30 servings
	Beans, waxed or green, regular cut – canned	125 mL	540 mL can = 4 servings
	– frozen	125 mL	1 kg package = 12-13 servings
	Broccoli – spears, frozen	3	1 kg package = 9 servings
	– cut, frozen	125 mL	1 kg package = 12 servings
	Cabbage – fresh, cooked	125 mL	1 kg = 6 servings
	Carrots – fresh, cooked, sliced	125 mL	1 kg = 8.9 servings
	– canned, sliced	125 mL	540 mL can = 4 servings
	– frozen, sliced	125 mL	1 kg package = 11 servings
	Cauliflower – frozen	125 mL	1 kg package = 11 servings
	Celery	for cooking	1 kg = 18 stalks or 1.6 L chopped
	Corn – canned, niblets	125 mL	341 mL can = 3 servings
	– frozen, niblets	125 mL	1 kg package = 11 servings
	Juice	125 mL	1.36 L can = 10 servings
	Lettuce – for salad	250 mL	1 kg = 2 medium heads or 10 servings
	Mixed vegetables – canned	125 mL	540 mL can = 3-4 servings
	– frozen	125 mL	1 kg package = 11 servings
	Onions	for cooking	1 kg = 15 medium onions or 1.7 L chopped
	Peaches – fresh	1	4 quart basket = 24 medium
	Peas – canned	125 mL	540 mL can = 4 servings
	– frozen	125 mL	1 kg package = 11-12 servings
	Potatoes – boiled or baked	1	1 kg = 6 medium potatoes
	– diced	125 mL	5 medium potatoes = 1 L diced (8 servings)
	– mashed	125 mL	7 medium potatoes = 1 L mashed (8 servings)
	Rutabaga – diced, cooked	125 mL	1 kg = 6 servings
	Sauerkraut – canned	125 mL	796 mL can = 7 servings
	Strawberries – fresh, whole	250 mL	1 quart basket = 4 servings
	– fresh, sliced	125 mL	1 quart basket = 7 servings
	– topping	25 mL	1 quart basket = about 20 servings
	Tomatoes – canned	125 mL	796 mL = 6 servings
<i>Meat</i>			
	Bacon	2-3 slices	500 g = 8 servings
	Cold cuts	3 slices	1 kg = 11 servings
	Ground meat	90 g cooked	1 kg raw = 7-8 servings
	Roasts – boneless	90 g cooked	1 kg raw = 7-8 servings
	– bone in	90 g cooked	1 kg raw = 5-6 servings
	Steaks and chops	90 g cooked	1 kg raw = 5-6 servings
	Stewing meat – boneless	90 g cooked	1 kg raw = 7-8 servings
	– bone in	90 g cooked	1 kg raw = 4 servings
	Turkey	90 g cooked	1 kg raw = 4 servings
<i>Bread and cereal products</i>			
	Bread	1 slice	450 g loaf = 16 slices 570 g loaf = 18 slices 675 g loaf = 22 slices
	Macaroni, elbow	250 mL cooked	1 kg package = 20-25 servings
	Noodles, egg, medium	250 mL cooked	1 kg package = 25 servings
	Rice – converted	125 mL cooked	1 kg package = 40 servings
	– long grain	125 mL cooked	1 kg package = 35 servings
	Spaghetti	250 mL cooked	1 kg package = 16 servings
<i>Miscellaneous</i>			
	Butter or margarine	5 mL	454 g package = 90 servings
	Coffee – ground	175 mL brewed	454 g package = 50 servings
	Cranberry sauce	25 mL	398 mL can = 16 servings
	Maple syrup	25 mL	1 L = 40 servings
	Salad dressing – salad	25 mL	500 mL container = 20 servings
	– sandwiches	10 mL	500 mL container = 50 servings
	Tea	175 mL brewed	1 teabag = 2 servings
	Wine – with meal	175-225 mL	750 mL bottle = 3-4 servings
	– for wine tasting party	50 mL/wine variety	750 mL bottle = 15 servings

SAMPLE MENU FOR FEEDING 50 PERSONS

NIAGARA FIZZ PUNCH*
ROAST TURKEY
BREAD DRESSING*
GRAVY*
MASHED POTATO
BUTTERED FROZEN GREEN BEANS
COLESLAW*
CRANBERRY SAUCE
SWEET MIXED PICKLES
ROLLS BUTTER
KAREN KAIN CHANTILLY*
COFFEE TEA MILK
SALT PEPPER SUGAR

Planning the sample menu safely

Because you have limited refrigeration space, you decide to serve a hot meal. If the meal is held in the summer, fresh strawberries will be available to make the Karen Kain Chantilly. The meringues will be prepared ahead of time and frozen. The coleslaw can also be made a day in advance and refrigerated. The foods requiring special care are the turkey, dressing, gravy and the whipped cream served with the dessert. These foods must be prepared as close to the serving time as possible.

Buying and storing food safely for sample menu

Two frozen turkeys (about 7 kg each) will be purchased. Utility-grade turkeys, which have a skin tear or a missing wing, can be used. All other ingredients can be bought a few days ahead of time except for the strawberries (2 days) and rolls (same day). The ingredients for the punch should be stored at room temperature until the day of the meal. If there is not enough room in the refrigerator, an ice chest can be used to chill these ingredients.

* Recipes included in this publication

Preparing the sample menu safely

ONE MONTH BEFORE Prepare and freeze dessert meringues.

THREE TO FOUR DAYS BEFORE Place two frozen turkeys (about 7 kg each) in refrigerator to thaw.

TWO DAYS BEFORE Prepare coleslaw. Place it in two containers and refrigerate.

TEN HOURS BEFORE Prepare dessert filling; do not add sugar until just before serving. Refrigerate. Chop celery and onion for bread dressing and prepare bread crumbs. Chill punch ingredients.

SEVEN HOURS BEFORE Roast two turkeys at 160°C until meat thermometer registers 85°C in the thigh (5½-6 h).

FOUR HOURS BEFORE Peel potatoes. Whip cream. Refrigerate.

TWO HOURS BEFORE Prepare bread dressing. If necessary, refrigerate it until ready for baking. Then bring 4 L water to a boil, add 15 mL salt and potatoes. Cover. When water returns to a boil, cook for about 20 minutes, drain well and mash.

FORTY-FIVE MINUTES BEFORE If the dressing is baked in same oven as the turkey, place it covered in the oven for the remaining 45 minutes. Remove the turkey. Prepare green beans. Bring 500 mL water to a boil, add 15 mL salt and the frozen green beans. Cover. When water returns to a boil, cook until tender-crisp (about 10 minutes). Drain. Add butter or margarine. While vegetables are cooking, prepare the gravy.

Serving the sample menu safely

The meal will be served buffet style. The guests will help themselves to the punch. The coleslaw, pickles, cranberry sauce, rolls and butter or margarine will be placed on the tables 15 minutes before serving time. The turkey and dressing will be in covered pans on hot trays. The green beans and mashed potatoes will also be on hot plates, and they will be replenished frequently. The gravy will be served in a pitcher that will be refilled from a supply kept simmering in the kitchen. The Karen Kain Chantilly will be assembled dur-

ing the meal, and the guests will help themselves to individual portions. To serve the meal as quickly as possible, a serving line on both sides of the table will be set up.

LARGE-QUANTITY RECIPES

From sample menu

NIAGARA FIZZ PUNCH

4 L lemon-lime soda pop
2 L white grape juice

Chill ingredients. Combine just before serving. Add ice cubes. Garnish with strawberries, if desired. 50 servings (125 mL each).

BREAD DRESSING FOR POULTRY

A potentially unsafe food made safer by cooking it separately. Serve hot. Your guests will think the dressing was cooked in the bird.

875 mL chopped celery
(about 9 large stalks)

625 mL chopped onion
25 mL poultry seasoning

25 mL sage

15 mL savory

3 mL salt

3 mL pepper

300 mL butter or margarine
9 L soft bread crumbs
(about 3 loaves)

1 L chopped peeled apple
(about 600 g)

625 mL chicken broth

Sauté celery, onion and seasonings in butter or margarine until celery is tender. Add bread crumbs and apple; combine. Add chicken broth; toss lightly. Turn into two greased 3.5 L pans (35 × 20 × 5 cm each). Cover and bake 45 min at 160°C. For moister dressing, bake 15 min more. 50 servings (125 mL each).

COLESLAW

An ideal salad to bring on picnics. It can be kept refrigerated for up to 3 weeks because it has an oil and vinegar dressing.

14.5 L shredded cabbage
(about 5 heads, 5 kg)
3 medium onions, thinly sliced

250 mL sugar

25 mL salt

300 mL oil

300 mL vinegar

300 mL cider vinegar

15 mL dry mustard

15 mL celery seed

Combine cabbage, onion, sugar and salt. Let stand 30 min. Combine remaining ingredients and bring to boil. Pour over salad and toss. Refrigerate overnight. May be stored up to 3 weeks in refrigerator. 50 servings (125 mL each).

PROPORTIONS FOR TURKEY OR BEEF GRAVY

Ingredients	Number of servings (50 mL each)		
	20	40	80
Meat drippings	200 mL	400 mL	800 mL
Flour	125 mL	250 mL	500 mL
Water	1 L	2 L	3.5 L
Salt	5 mL	15 mL	25 mL
Pepper	1 mL	2 mL	5 mL
Poultry seasoning*	0.5 mL	1 mL	2 mL

* For turkey gravy only

Prepare gravy directly in pan in which meat was roasted, if possible. Blend flour into meat drippings. Gradually add water. Bring to boil, stirring constantly with wire whisk. Reduce heat and simmer until smooth and thickened, stirring occasionally. Add seasonings.

KAREN KAIN CHANTILLY

Meringues

8 egg whites
1 mL cream of tartar
500 mL sugar
5 mL vanilla

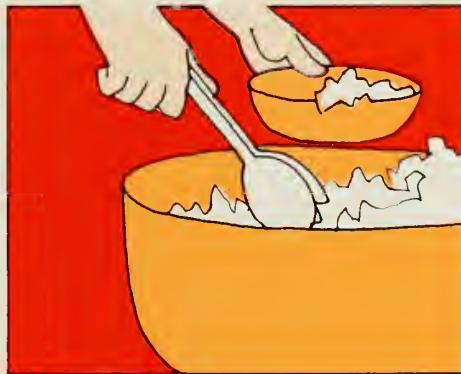
Beat egg whites and cream of tartar until soft peaks form. Gradually beat in sugar, then vanilla until stiff peaks form. Line a baking sheet with greased foil. Shape meringue into rings (7 cm in diameter and 3 cm high) using a piping bag or two spoons. Bake at 120°C until set (1-1½ h). Turn off oven and let stand 1 h more. May be stored up to 1 month in freezer. Do not thaw before filling. Makes about 25 meringues.

Filling

1.5 L sliced strawberries OR
6 packages (425 g each)
frozen strawberries,
thawed and drained*
50 mL sugar
250 mL whipping cream
25 mL icing sugar
15 mL kirsch OR
5 mL vanilla

Combine strawberries and sugar. Whip cream, gradually adding icing sugar, then kirsch or vanilla. Fill each meringue with 50 mL strawberry mixture and top with 25 mL whipped cream. Garnish with a strawberry slice. May stand up to 1 h at room temperature before serving. 25 servings.

* If using sweetened strawberries, omit 50 mL sugar.



Other recipes

POTATO SALAD

A potentially unsafe food if not kept refrigerator cold until serving time.

5 L diced potato, cooked
(4.5 kg)
10 chopped hard-cooked eggs
625 mL chopped celery
375 mL sliced green onion
250 mL chopped green pepper
375 mL mayonnaise or
salad dressing
250 mL pickle relish
25 mL dry mustard
25 mL salt
5 mL pepper

Toss ingredients to combine potato, egg, celery, green onion and green pepper. Combine mayonnaise or salad dressing, relish and seasonings; add to salad. Mix lightly. Garnish with paprika, if desired. 50 servings (125 mL each).

TOSSED SALAD

12.5 L torn salad greens*
(about 3 kg)
1 L sliced celery
(2/3 bunch)
1 L sliced mushrooms
(about 500 g)
8 medium tomatoes, cut in
wedges
250 mL chopped onion or sliced
green onion
15 mL salt
5 mL pepper

Lightly toss salad greens, celery, mushrooms, tomato and onion. Chill. Just before serving, sprinkle with salt and pepper. Serve with favorite dressing if desired. 50 servings (250 mL each).

* Suggested combination: iceberg lettuce, romaine lettuce and spinach

FOUR BEAN SALAD

Never use home-canned beans.

4 cans (540 mL each) green beans
3 cans (540 mL each) wax beans
3 cans (540 mL each) kidney beans
2 cans (540 mL each) garbanzo beans
750 mL sliced celery
500 mL chopped onion
500 mL oil
500 mL vinegar
75 mL sugar
25 mL dry mustard
15 mL salt
2 cloves garlic, crushed

Drain beans well. Combine with celery and onion. Combine remaining ingredients; add to salad and toss. Marinate in refrigerator in flat pan 12 h or overnight. Drain before serving. 50 servings (125 mL each).

EGG SALAD SANDWICH

FILLING

A potentially unsafe food. Take extra care in making the filling. Prepare the sandwiches in a clean area. Avoid cross-contamination. Serve cold.

1.5 L finely chopped celery
(about 1 bunch)
250 mL finely chopped onion
250 mL mayonnaise or salad dressing
15 mL dry mustard
10 mL salt
2 mL pepper
3 L chopped hard-cooked egg
(36 eggs)

Combine celery, onion, mayonnaise or salad dressing and seasonings. Add egg and mix well. 50 servings (50 mL each).

CHICKEN SALAD SANDWICH FILLING

A potentially unsafe food if extreme care is not taken in preparation. Keep the filling refrigerator cold until ready to use.

375 mL mayonnaise OR salad dressing
375 mL pickle relish

50 mL vinegar
5 mL dry mustard
5 mL tarragon
5 mL salt
5 mL pepper

3.7 L diced cooked chicken
(1.9 kg)

250 mL finely chopped celery

Combine mayonnaise or salad dressing, relish, vinegar and seasonings. Add chicken and celery; mix well.
50 servings (50 mL each).

LIGHT AND LIVELY CHEESECAKE

1.3 L graham wafer crumbs

500 mL melted butter or margarine

175 mL sugar

1.5 L cottage cheese

750 mL icing sugar

500 mL skim milk powder

375 mL cold water

75 mL lemon juice

10 mL grated lemon rind

Dash salt

375 mL sugar

5 mL vanilla

200 mL water

75 mL unflavored gelatin

200 mL boiling water

Combine graham wafer crumbs, butter or margarine and 175 mL sugar. Press into two 7 L pans (30 × 45 × 5 cm each). Beat cottage cheese until smooth (about 20 min). Blend in icing sugar. Combine skim milk powder, 375 mL cold water, lemon juice, lemon rind and salt; beat until stiff peaks form (about 12 min). Gradually beat in 375 mL sugar and vanilla. Soak gelatin 5 min in 200 mL water. Add 200 mL boiling water and stir until gelatin is dissolved; add to skim milk powder mixture. Fold into cottage cheese. Spread half of mixture over crust in each pan. Chill 4 h or overnight. Just before serving, garnish with fruit, if desired. Cut each cheesecake 4 × 6. 48 servings (7.5 × 7.5 cm each).

COMMON CAUSES OF FOOD POISONING

STAPHYLOCOCCUS AUREUS

Bacteria enter food from the nose, from infected cuts and skin irritations, or are present in raw meat. Toxin (poison) is produced if the bacteria grow in protein-rich foods. This occurs if the food is kept at a warm temperature (15-45°C) for more than an hour. The bacteria are destroyed by heat, but the toxin they produce is highly resistant to heat, cold and chemicals. Within 2-4 hours after a significant amount of toxin is eaten, a sudden, violent onset of nausea, diarrhea, and vomiting will occur. These symptoms can last for 1-2 days. Dairy products, meats and combination foods such as cream puffs or potato salad are most susceptible to these bacteria.

SALMONELLA

Bacteria are formed naturally in the intestinal tract of humans and animals. Raw meats, especially poultry and pork, are frequently contaminated during slaughtering despite good sanitary procedures. Cooking meat so that it will reach internal temperatures of 60°C for 10 minutes (or to 65°C and above) will destroy salmonella. Bacterial growth is prevented at temperatures of 4°C or below. If food containing salmonella is eaten, the bacteria multiply rapidly in the intestine. Headaches, diarrhea, abdominal discomfort and occasional vomiting will occur within 8-24 hours. Recovery normally takes 2-4 days. Although death rarely occurs, salmonella may weaken the aged, infants or the infirm and may contribute to the cause of death. Raw poultry, cracked eggs and raw meats are the most common sources, and the organism can be transferred from these, through contaminated work surfaces or utensils, to potentially unsafe foods such as cooked poultry, meat, gravy and combination foods.

CLOSTRIDIUM PERFRINGENS

Bacteria are present in the intestinal tract of humans and other warm-blooded animals. Warm temperatures, moisture and an anaerobic (absence of oxygen) condition cause rapid multiplication of the bacteria. Symptoms occur within 8-24 hours after eating and are characterized by acute abdominal pain and diarrhea, usually lasting for 24 hours. Nausea and vomiting rarely occur. Foods such as meat, poultry, and other protein foods have a

high risk of being contaminated, especially when improperly cooked or stored. Gravies, sauces, casseroles and soups kept in large or deep containers are the perfect place for these bacteria to grow. Contamination can occur even if the containers are refrigerated because it takes such a long time for the food to cool.

CLOSTRIDIUM BOTULINUM

These spore-forming bacteria are present throughout the environment in soil and water, on fresh produce and in other foods. The spores themselves are harmless, but they may be stimulated to germinate and multiply. This may occur in an air-free, low-acid environment. Only high temperatures attained under pressure (e.g., in a pressure canner) can kill the spores in low-acid foods. The toxin produced by these bacteria can cause death even if only a small amount of food containing the toxin is eaten. Symptoms develop within 12-72 hours and include nausea, vomiting, dizziness, headaches, paralysis and double vision. Improperly home-canned, low-acid foods such as vegetables, meat, fish and poultry present a high risk.

For more information on safe food handling, write to Educational Services, Health Protection Branch, Health and Welfare Canada, Ottawa K1A 1B7, for a copy of *Food Safety — It's All in Your Hands*.

Prepared by Food Advisory Division, Agriculture Canada, 1984

KITCHEN METRICS

Most commonly used oven temperatures

° C replaces °F
100 200
150 300
160 325
180 350
190 375
200 400
220 425
230 450

Refrigerator temperature: 4°C replaces 40°F
Freezer temperature: -18°C replaces 0°F

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